Mechanical urethritis and ascendent genitourinary infections due to sexual stimulation of the urethra by inserted foreign bodies

J Péč, Š Straka, F Novomeský, J Kliment, M Péč, Ž Lazárová

Abstract

The cases of 23 men with mechanical urethritis due to insertion of foreign bodies into the urethra are presented. Seven patients had upper urinary tract infections and one died with gangrene of the genitalia and septicaemia.

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Introduction

Mechanical urethritis and ascending genitourinary infections occur in adults most commonly after urological examinations and in children after insertion of foreign bodies into the urethra.¹

However, in venereologic practice, mechanical urethritis is occasionally encountered in adult men after insertion of foreign bodies into the urethra either by the men themselves or by their sexual partners in order to stimulate an erection of the penis.

We report our experience with 23 cases to highlight the clinical presentation and to point out some serious and even life threatening complications.

Patients and methods

The patients were 23 men between 16-51 years of age, from all over the territory of Slovakia (population about 5 million) presenting between 1960 and 1990. The patients consulted the doctor either because of their clinical symptoms of urethritis, cystitis, infection of the upper renal tract, septicaemia or because of radiological findings of foreign bodies in the urinary bladder.

All the patients had serological tests for syphilis and cultures from the urethra to exclude *Neisseria gonorrhoeae*, *Trichomonas vaginalis* and nonspecific bacterial microflora.

Additional investigations included serum urea and electrolytes, excretion urography and cystoscopy.

Results

Symptoms of urethritis (a painful burning sensation at urination and urethral discharge) were reported by all 23 patients and in five the discharge was purulent and continuous.

Urethral cultures for *Neisseria gonorrhoeae* and *Trichomonas vaginalis* were negative in all cases as were the serological tests for syphilis. A variety of nonspecific bacteria were cultured

from the urethra including beta-haemolytic streptococci group B, Streptococcus viridans, and Escherichia coli (table 1).

Seven patients presented with cystitis, cystopyelitis or cystopyelonephritis, and one developed septicaemia and died. He was admitted to the hospital with gangrene of the penis (fig 1) and septicaemia and died 12 hours later. Radiographs revealed a foreign body in his bladder that was identified at necropsy as a metal wire, encrusted with a thick layer of urinary deposits. Subsequent enquiries revealed that he had a single sexual partner who during her visits to his flat requested five

Table 1 Microflora found in 23 patients with mechanical urethritis

Coagulase-negative staphylococci	10
Staphylococcus aureus	2
Beta-haemolytic streptococci group B	7
Streptococcus viridans	5
Streptococcus pneumoniae	1
Escherichia coli	5
Enterococcus faecalis	4
Proteus mirabilis	3
Proteus species	1
Diphtheroids	3
Candida albicans	1

From the Departments of Dermatovenereology, Epidemiology J Péč Š Straka Ž Lazárová

Forensic Medicine F Novomeský

Urology J Kliment

Pharmacology M Péč

Jessenius Faculty of Medicine, Comenius University, Martin Czecho-Slovakia

Address for correspondence: Dr Juraj Péč, Department of Dermatovenereology, Faculty Hospital, Kollárova 2, CS-036 59 Martin, Czecho-Slovakia



Figure 1 Gangrene of the penis and scrotum caused by the insertion of wire into the urethra.

Figure 2 A piece of wire encrusted in urinary sediments recovered from the bladder.

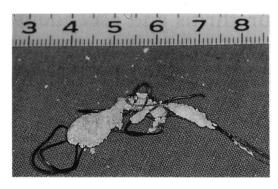


Figure 3 A plastic tube and three fragments of a pencil recovered from the bladder.

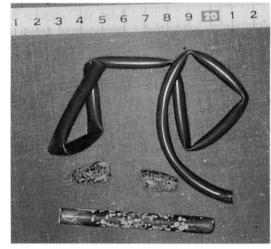
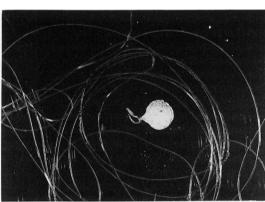


Figure 4 Nylon fishing line with a little hook found fixed in the urinary bladder wall together with a compact urinary stone of 1 cm size.



sexual contacts following shortly one after another, and in order to maintain his erection she helped him by inserting pieces of wire into his urethra.

Foreign bodies were surgically removed from the urinary bladders of all the patients and included six patients with pieces of candle, four with hairpins and knitting needles, three with pieces of wire (fig 2), four with plastic tubes (fig 3), two with pieces of pencil, and one each of the following: a thermometer, a nylon fishing line with little hook (fig 4), pieces of straw, and a rubber bottle stopper.

Discussion

Mechanical urethritis and ascendent urinary tract infection and septicaemia may result from insertion of foreign bodies into the urethra for the purpose of sexual stimulation.

Most foreign bodies removed surgically from the patient's bladders were encrusted in urinary deposits suggesting long-term persistence in the bladder. All these bodies were apparantly inserted in the urethra as a form of sexual stimulation or to maintain erections. It is likely that the items were originally inserted into the urethra, during erections and subsequently slipped into the bladder from where they could not be manually removed. Some individuals practiced this kind of sexual stimulation repeatedly as is evidenced by finding of several pieces of wire and other items in the bladder. All the patients were reluctant to confess to such practices and some only confessed the truth in a letter addressed to the doctor prior to or after they had sought medical help. Many of the letters suggested underlying sexual or psychological problems in the patient or their sexual partners.

¹ Wooley PD. Recent advances in non-gonococcal urethritis: pathogenesis, investigation and treatment. *Int J STD AIDS* 1990;1:157-60.